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10/618,216	07/11/2003	John A. Pasko	TEC1238-01	4237
832	7590	02/14/2006	EXAMINER	
BAKER & DANIELS LLP 111 E. WAYNE STREET SUITE 800 FORT WAYNE, IN 46802			DRODGE, JOSEPH W	
			ART UNIT	PAPER NUMBER
			1723	

DATE MAILED: 02/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,16-18,and 22-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Steen et al PGPUBS document US2001/0024165.

Steen et al document '165 disclose battery power source to sensor module and processor (paragraph 6), wireless communication device having processor, software, ability to receive and send/ event messages (paragraphs 6,22,26 and 51), processing system to produce and route messages (paragraphs 23,27,44 etc.), and detector or probe modules to monitor liquid levels such as in manholes (paragraphs 24 and 56).

Regarding claims 17 and 18, 22-24 and 27, timers and other means are utilized for periodically powering up individual sensor modules (paragraphs 35-45).

Regarding claims 25 and 26, the system includes self testing of functioning of the sensor modules (paragraphs 51 and 53).

Paragraph 22 concerns various cellular networks including GSM systems.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2,4-13 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steen et al document '165 in view of Tullis patent 3,781,624 and Farr patent 5,238,369, of record. Claims 2-13 and 19-21 differ from Steen et al in requiring the sensor module to include a capacitive probe, although Steen '165 does further disclose a capacitive sensing circuit (paragraph 56). Tullis teaches that such capacitive probe for sensing liquid levels in environments similar to manholes is known (column 2, lines 5-19, column 5, lines 19-37, while Farr teaches that capacitive detectors are advantageous in determinations of liquid levels in sumps and water tanks subject to

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wide variations in water levels. It would have been obvious to one of ordinary skill in the art to have utilized capacitive level sensing elements, as suggested by Farr '369 and Tullis, in order to provide an accurate record of rapidly and widely varying water levels without damage to the detector elements.

Regarding claims 6,7,8 and 20, Tullis in column 6, lines 10-48 teaches to mount a level sensor to the mounting ring of a manhole, while Steen et al discloses mounting of level sensors to manhole covers, with their extending downwardly therefrom.

Regarding claims 9 and 22, Steen et al also disclose various types of antenna transmission components and relaying of event messages over cellular communication systems or to the Internet.

Claims 3 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steen et al document '165 in view of Tullis and Farr, as applied to claim 2 above, and further in view of Heger patent 6,568,264. Claims 3 and 21 further differ in requiring the sensor to comprise dielectric insulation. Such electrical insulation or dielectric insulation or cover is taught by Heger at column 1, lines 45-55. It would have been further obvious to have utilized such dielectric insulation to protect the electrodes or metallic parts of the detector from corrosion or other damage due to periodic immersion.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Steen et al document '165 in view of Steen et al patent 6,510,350. Claim 14 further differs in requiring the wireless device to comprise a GPS locator, although similar, related transmissions are mentioned in paragraph 22 of '165. The patent teaches such GPS

system in column 10, lines 49-67. It would have been obvious to one of ordinary skill in the art to have utilized the GPS system of Steen patent '350 in the Steen '165 communications system, to precisely display locations of sensor data and faulty sensors to field units receiving sensor information.

Applicant's arguments filed January 3, 2006 have been fully considered but they are not persuasive.

It is argued that the primary Steen et al reference does not disclose any device that generates event messages. However, Steen et al in paragraphs 21,22,25 and especially 26 disclose data acquisition device 26 and associated microprocessor 30 and interface 32, as operable to convert signals of raw data received from sensors into useable data having quantitative values and transmit such data. Such transmitted data qualifies as "event messages", since each occurrence of recording of raw data by each sensor is an "event" and each transmission of data of quantitative values constitutes a "message". Such Argument is apparently referring to incidents of events pertaining to liquid levels exceeding a given threshold or a failure of a sensor, as discussed on page 3 of the Instant Specification. However, the claims do not contain any structural or apparatus features commensurate with generating of such particular events.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Heger patent 6,568,264 is further representative of prior art concerning capacitive sensors for determining water levels.

Schutzbach patent 6,701,261 and Hunter et al patent 5,608,171 are representative of prior art concerning messages pertaining to unique, specific sensed events such as rise in water levels in monitored systems due to rainfall events.

Wolfe et al patent 6,560,543 concerns transmission of sensor data to the Internet.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Drodge at telephone number 571-272-1140. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can be reached at 571-272-1151. The fax phone number for the examining group where this application is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or Public PAIR, and through Private PAIR only for unpublished applications. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JWD

February 7, 2006

*Joseph Drodge*  
JOSEPH DRODGE  
PRIMARY EXAMINER